

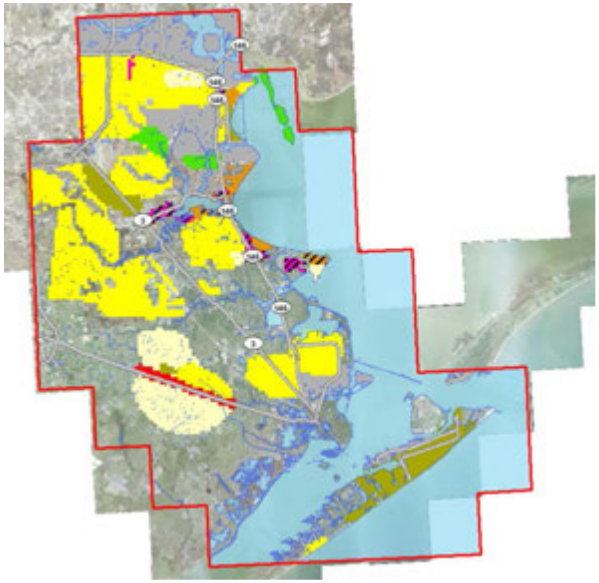
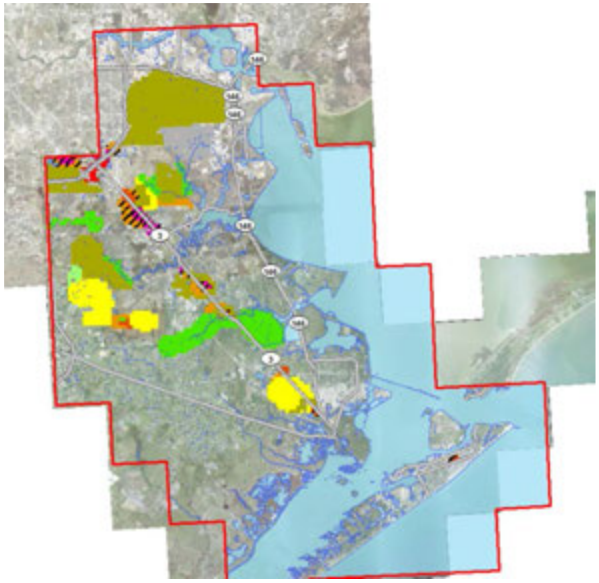
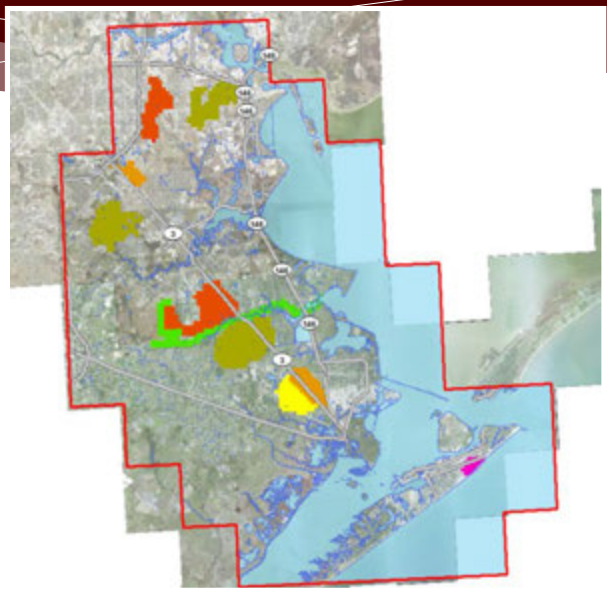
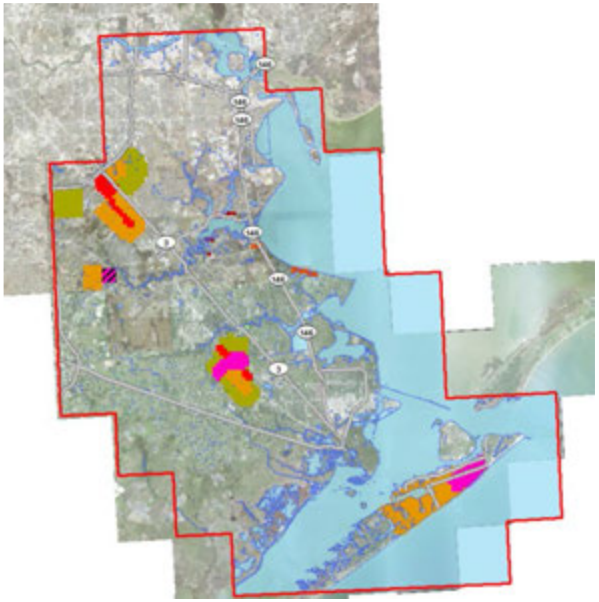
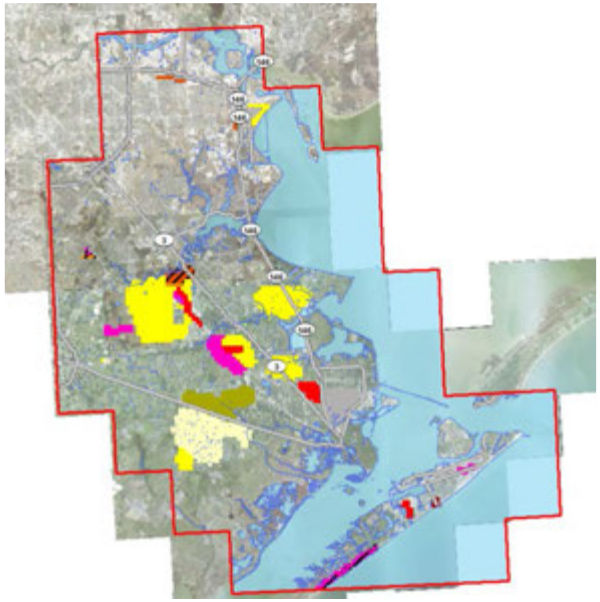
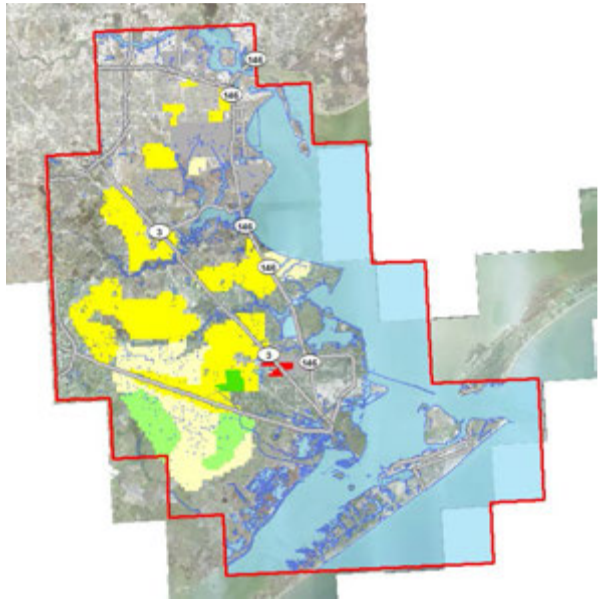
New Smyrna Beach NAI-CHARM Workshop

October 11, 2018

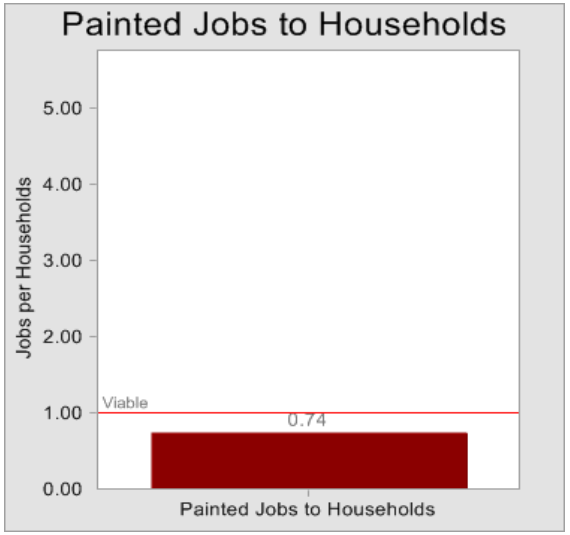
Community Health And Resource Management

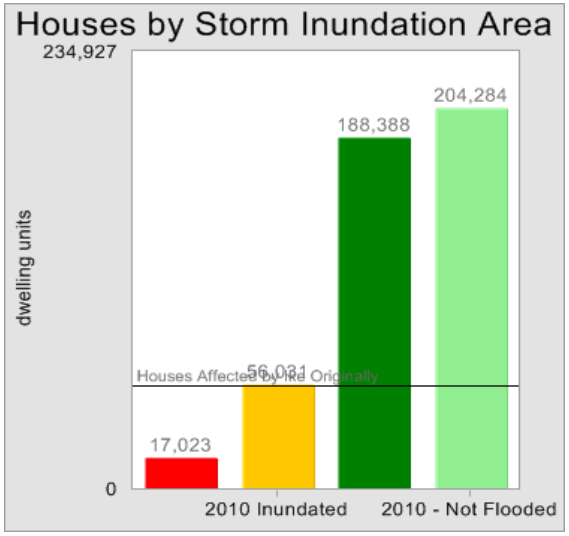


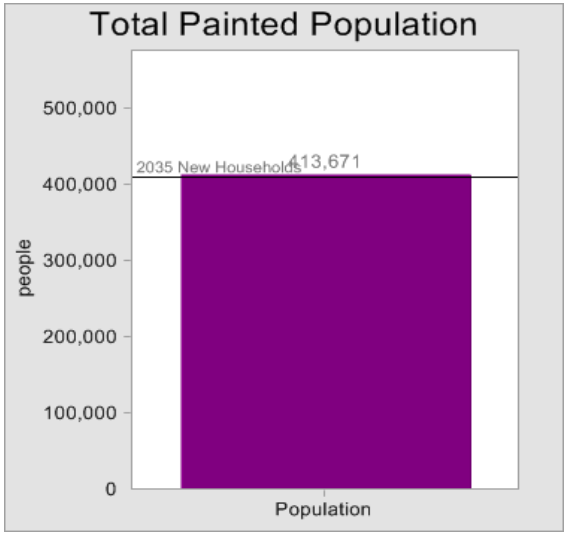


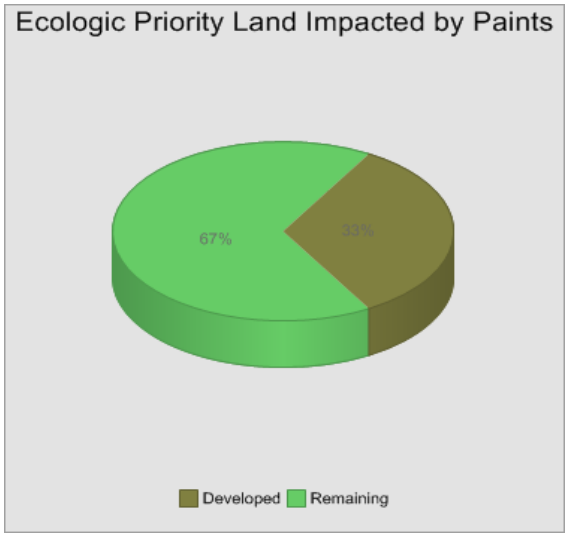







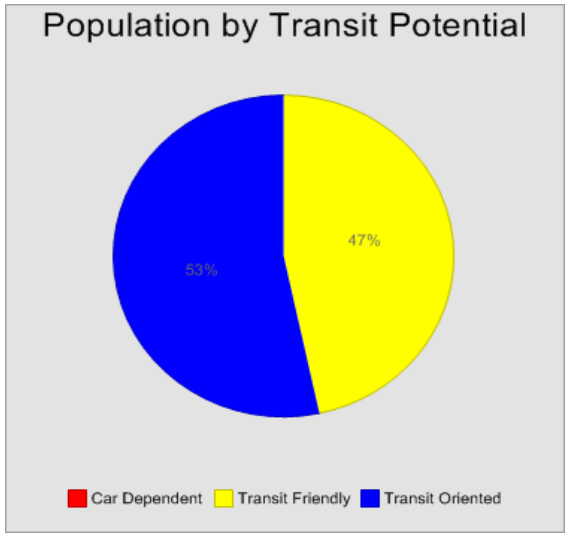
TEXAS A&M AGRILIFE EXTENSION

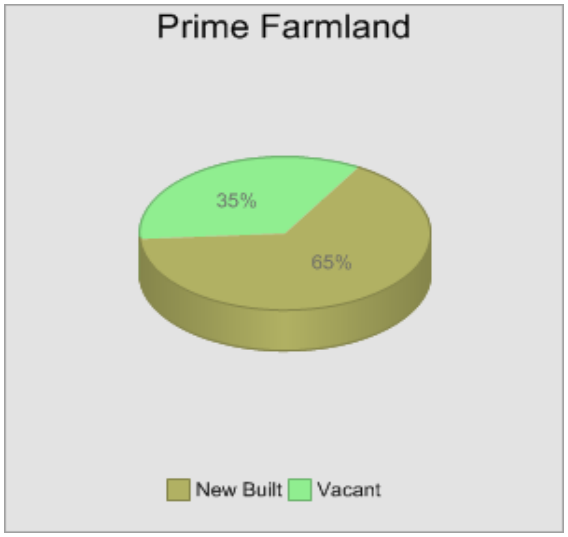






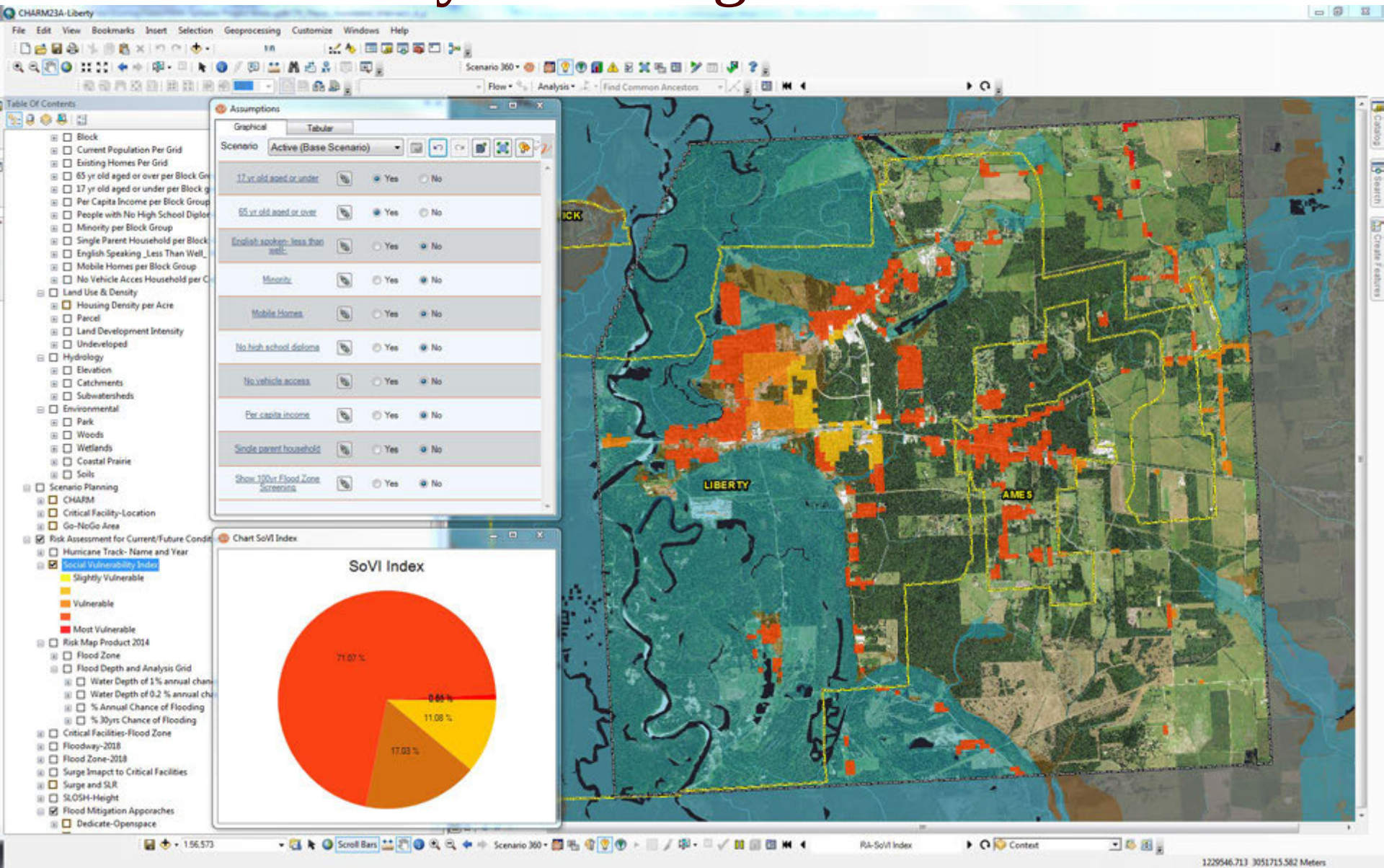


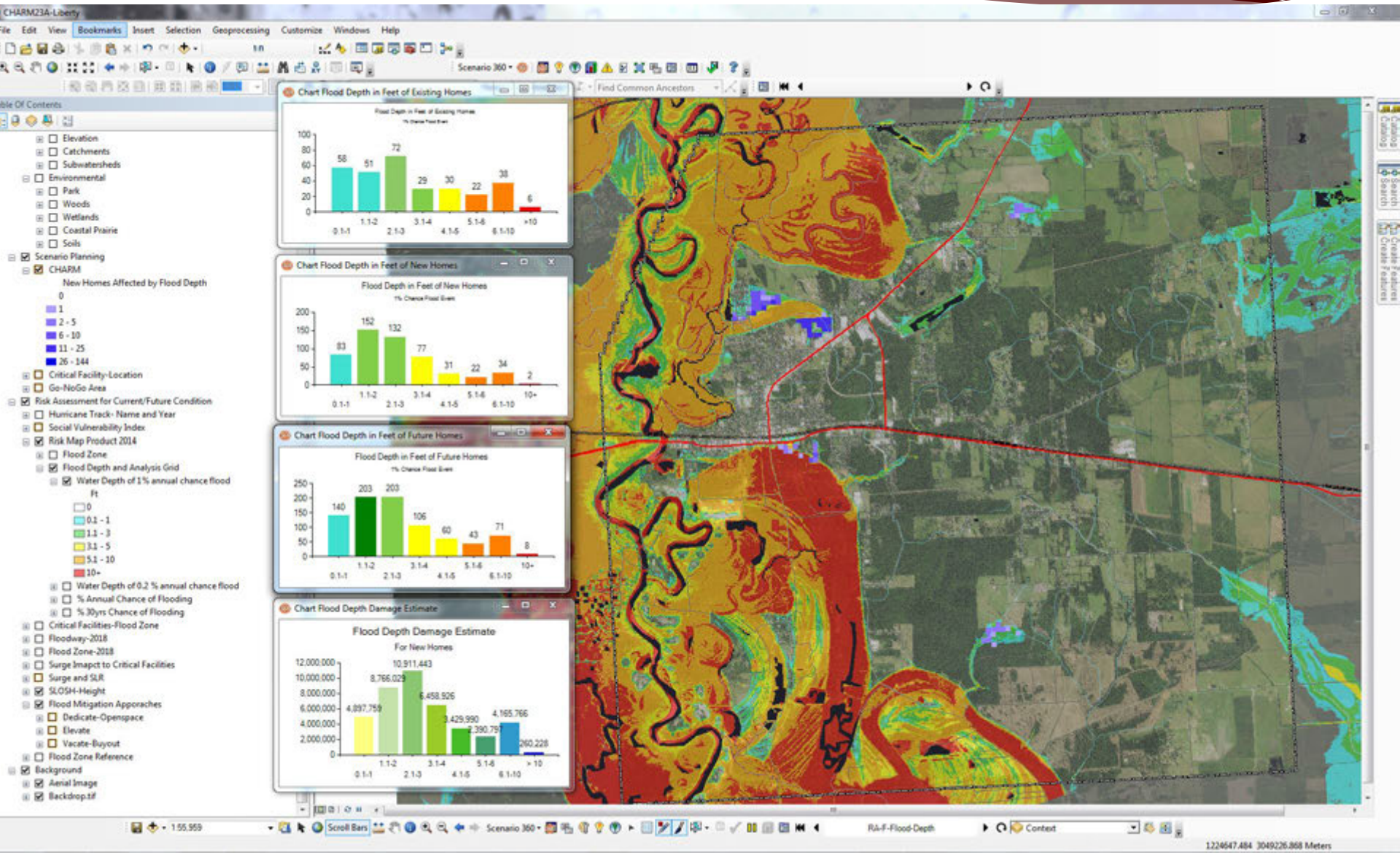




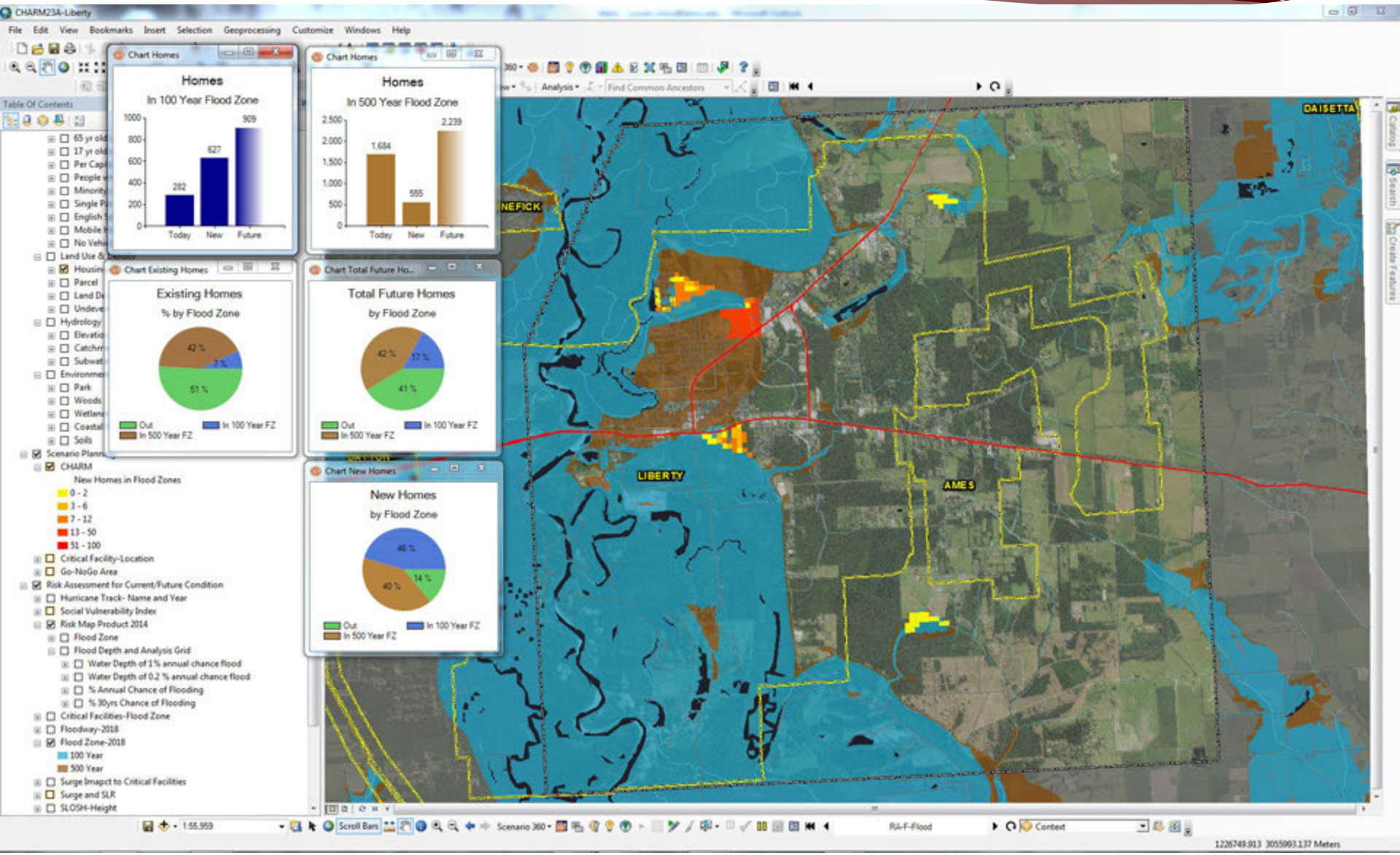
TEXAS A&M AGRILIFE EXTENSION

SOVI- Elderly & Young





TEXAS A&M AGRILIFE EXTENSION


CHARM23A-Liberty
File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help
Chart Homes
Homes
In 100 Year Flood Zone
1000
800
600
400
200
0
282
627
909
Today
New
Future
Chart Homes
Homes
In 500 Year Flood Zone
2,500
2,000
1,500
1,000
500
0
1,684
555
2,239
Today
New
Future
Chart Existing Homes
Existing Homes
% by Flood Zone
42 %
51 %
Out
In 100 Year FZ
In 500 Year FZ
Chart Total Future Ho...
Total Future Homes
by Flood Zone
42 %
17 %
41 %
Out
In 100 Year FZ
In 500 Year FZ
Chart New Homes
New Homes
by Flood Zone
46 %
14 %
40 %
Out
In 100 Year FZ
In 500 Year FZ
Table Of Contents
New Homes in Flood Zones
0 - 2
3 - 6
7 - 12
13 - 50
51 - 100
Critical Facility-Location
Go-NoGo Area
Risk Assessment for Current/Future Condition
Hurricane Track- Name and Year
Social Vulnerability Index
Risk Map Product 2014
Flood Zone
Flood Depth and Analysis Grid
Water Depth of 1% annual chance flood
Water Depth of 0.2 % annual chance flood
% Annual Chance of Flooding
% 30yrs Chance of Flooding
Critical Facilities-Flood Zone
Floodway-2018
Flood Zone-2018
100 Year
500 Year
Surge Imapct to Critical Facilities
Surge and SLR
SLOSH-Height
DAISETTA
LIBERTY
AMES


2.5-Acre Grid
United States Census Bureau
FEMA
USGS
science for a changing world
NOAA
USDA
ESRI

CHARM by the numbers

Up to 10 Participants per tables

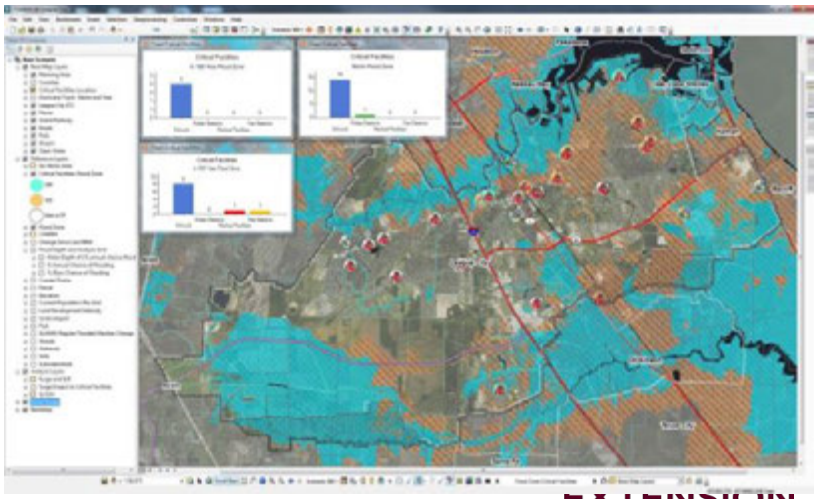
30+ Map Layers

60+ Real-time Indicators

14 Development Styles

10 Risk- and Scenario-Based Summaries





EXTENSION



Objectives

Participate directly in scenario analysis and view planning and mitigation impacts in real time

Become more aware of risks specific to your community and to understand approaches to mitigating these risks through effective planning

Facilitate dialogue about your community's values and visions for its future

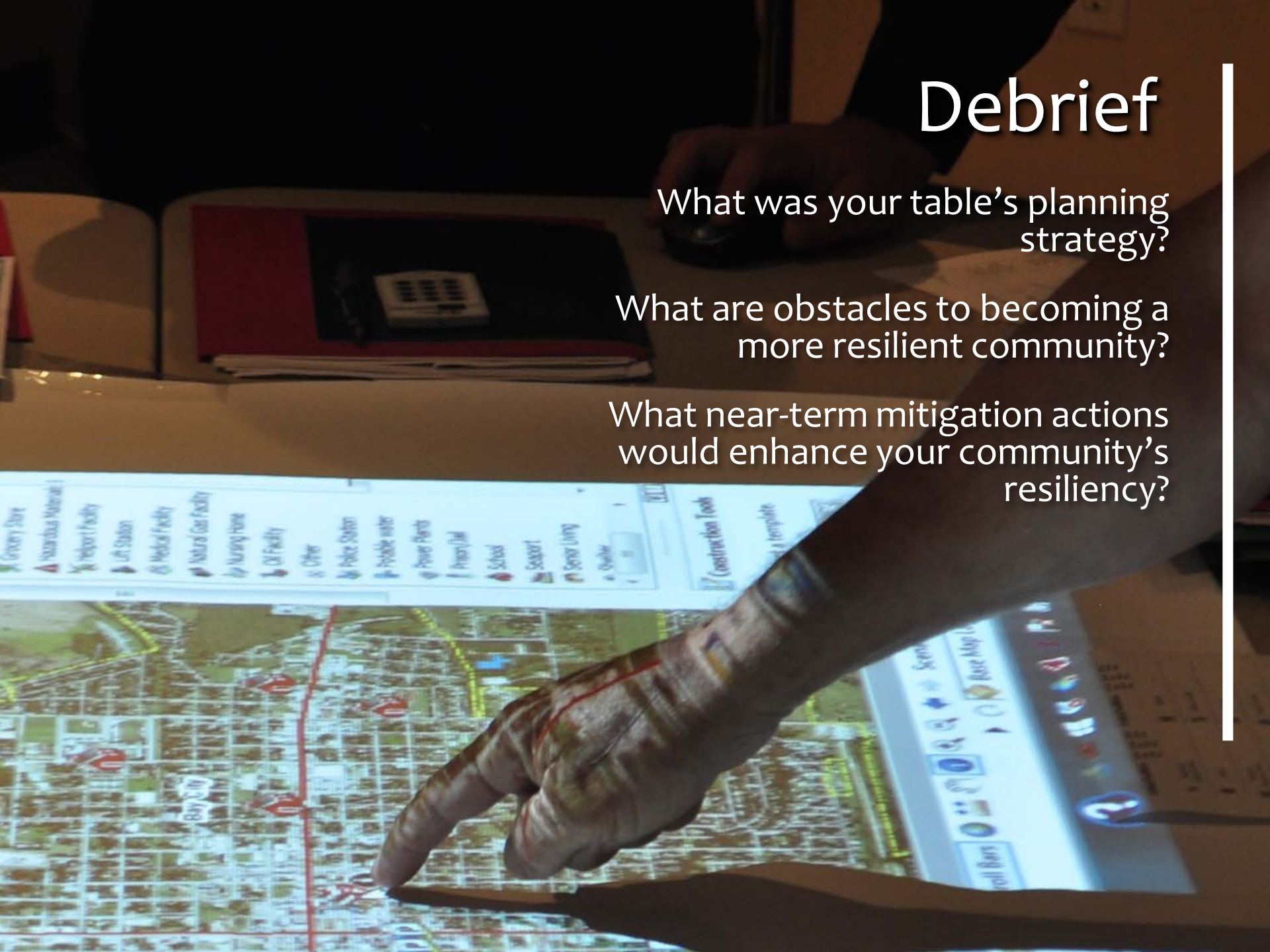


Scenario Goals

Build at least 3 developments, use at least 3 different paints

Hit your table's population target

Imagine a 20 year time frame



Debrief

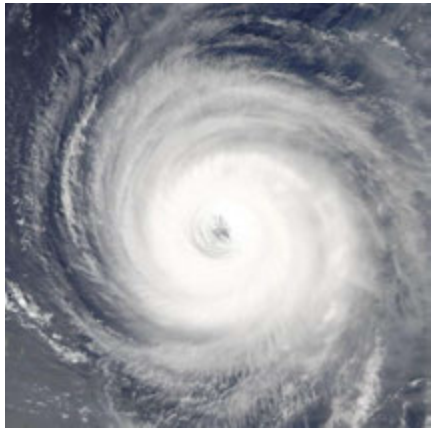
What was your table's planning strategy?

What are obstacles to becoming a more resilient community?

What near-term mitigation actions would enhance your community's resiliency?

CHARM

Plan Using Guiding Principles












CHARM Supports Dialogue

Jackson Co

June 2016



Galveston, TX

September 2016



CHARM

Hays Co

August 2017



Brazoria Co

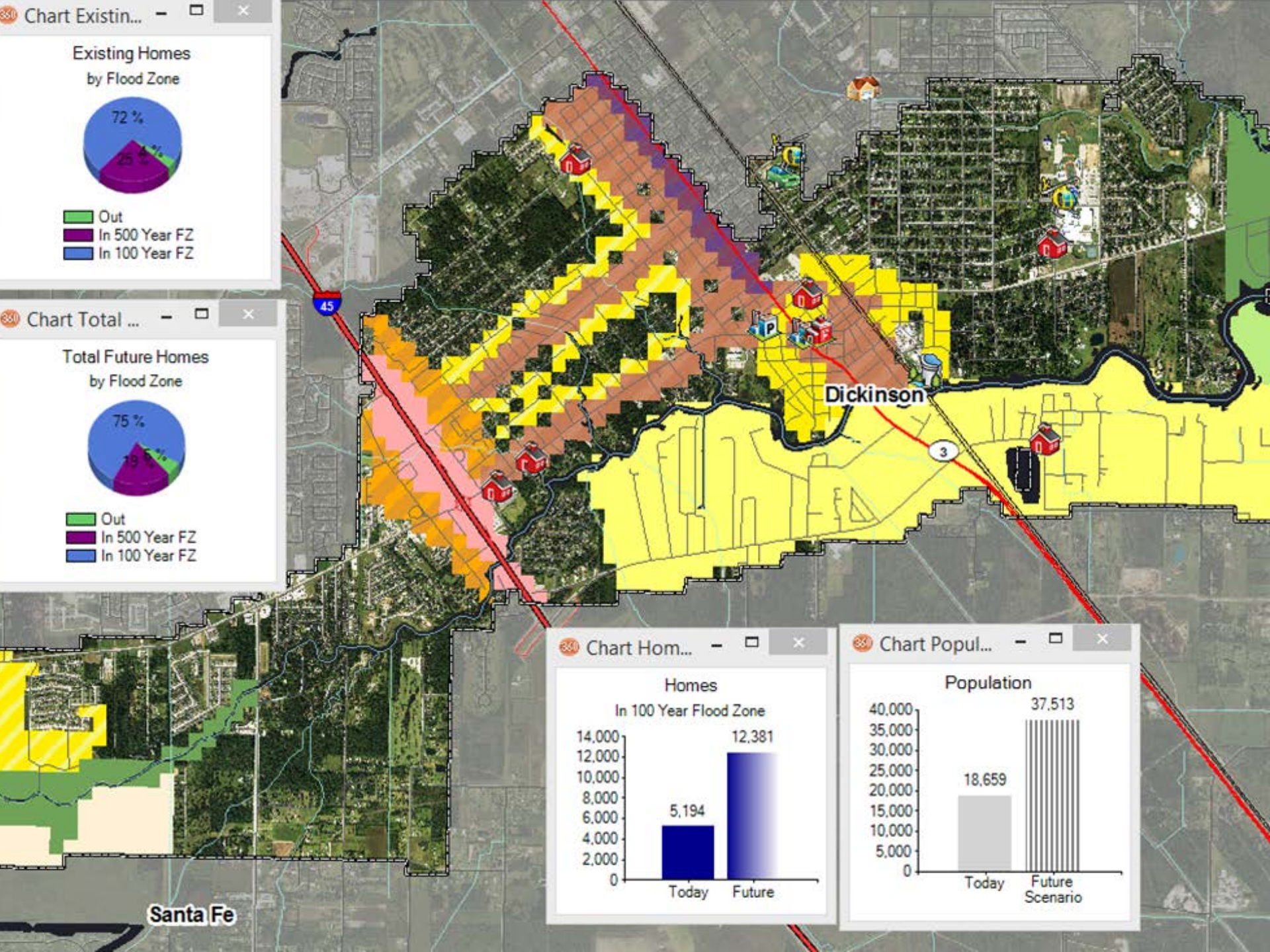
April 2018

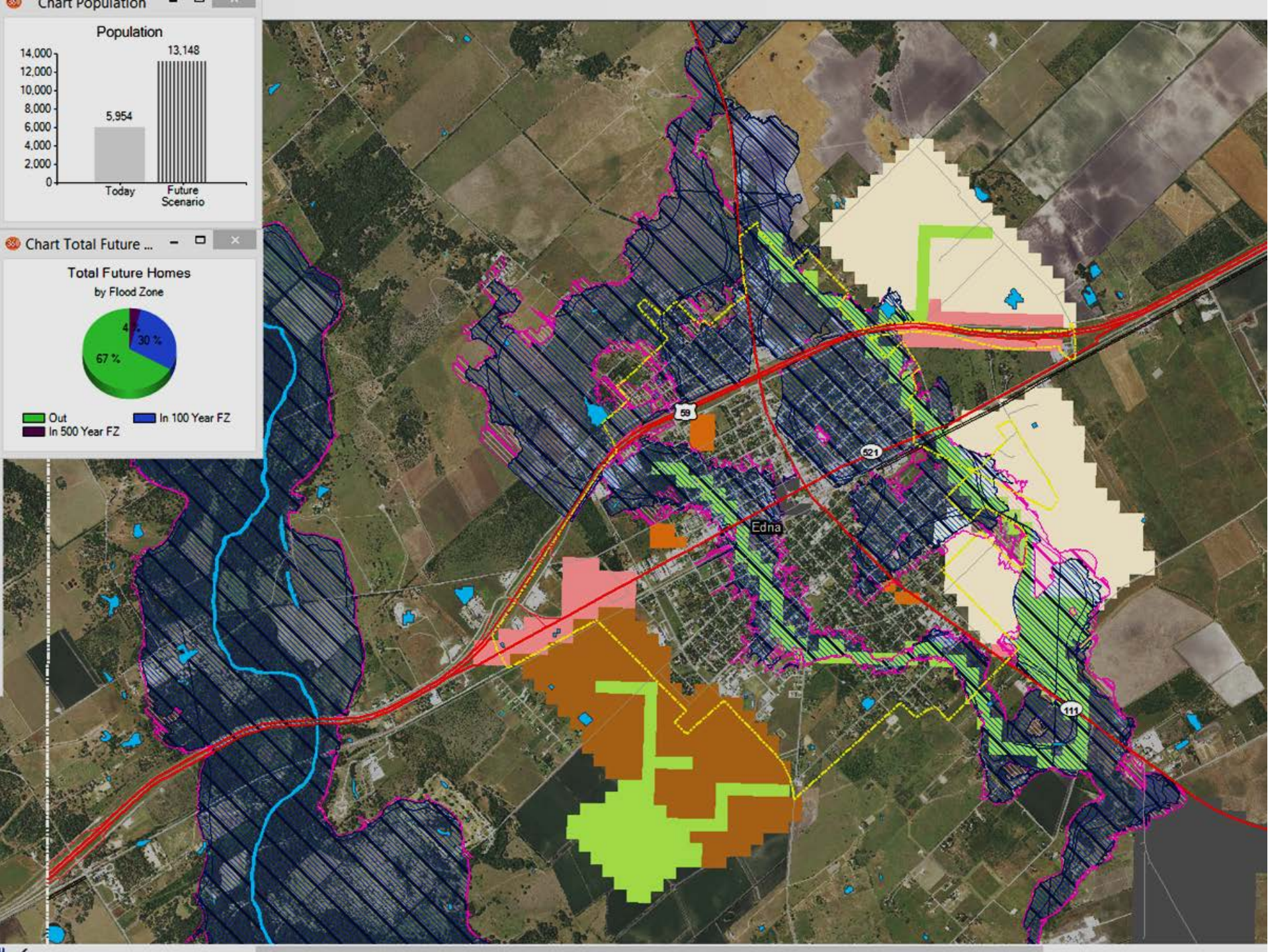


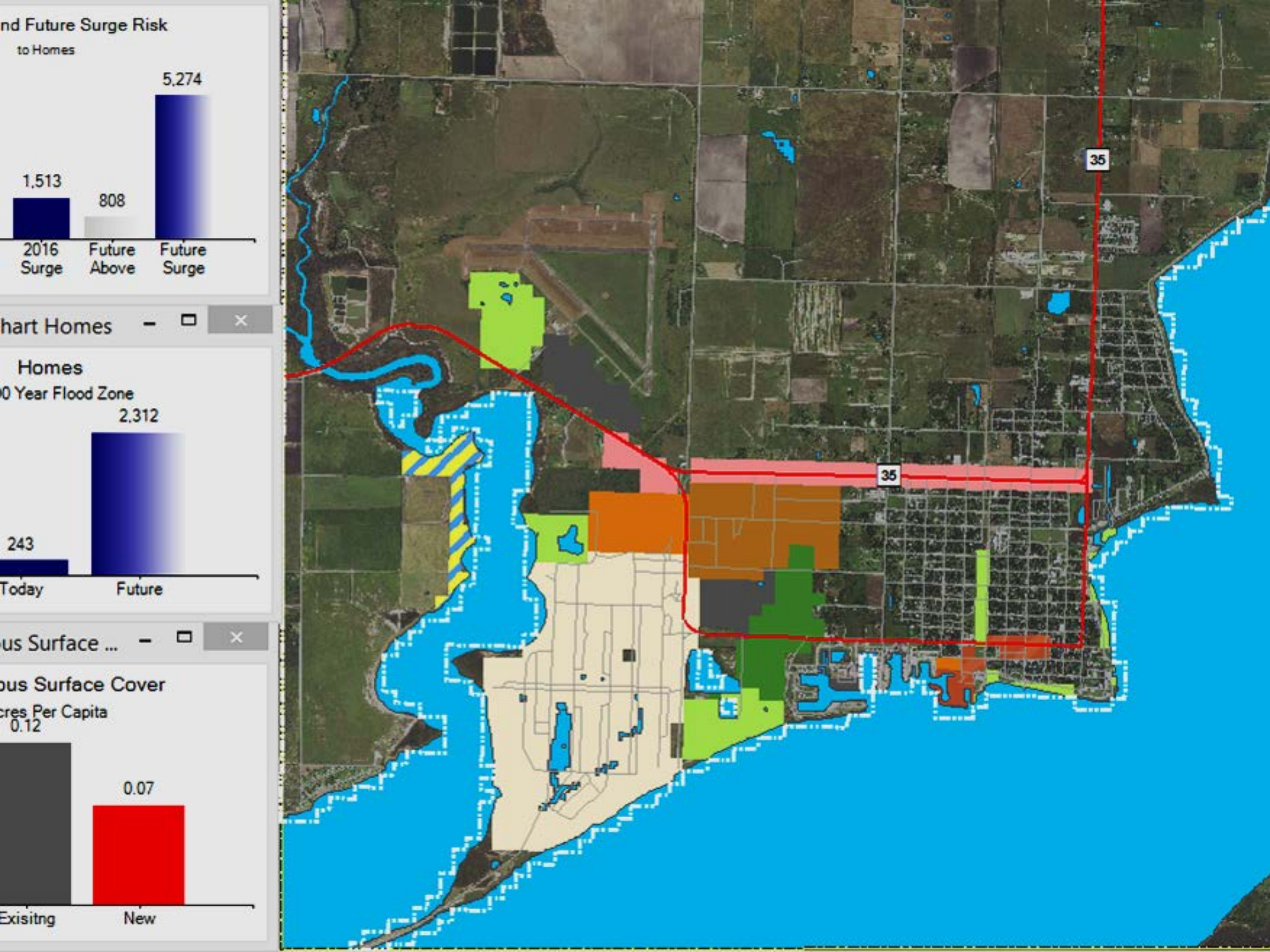
Liberty Co

April 2018

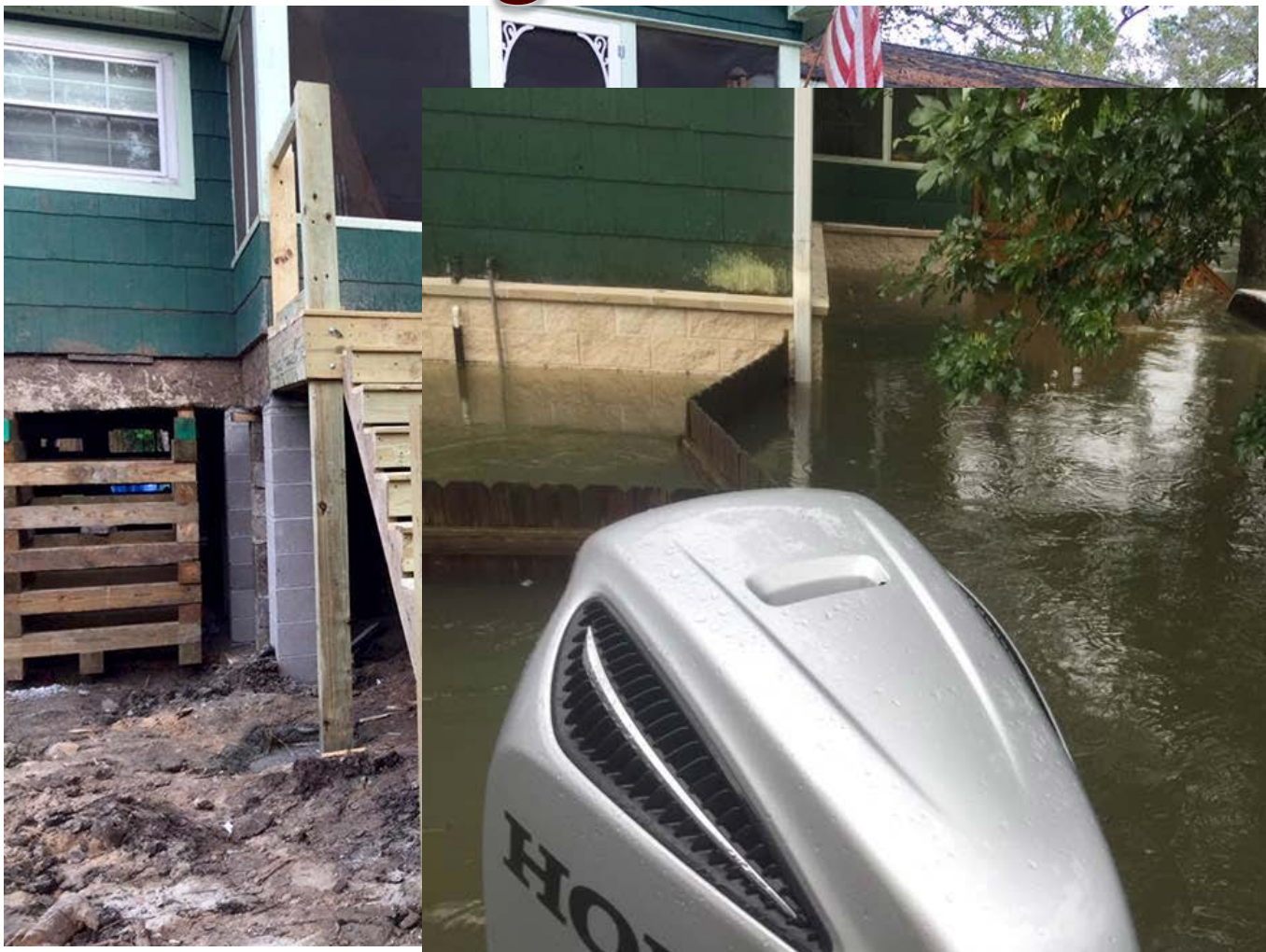



Chart Existin...
Existing Homes
by Flood Zone
72 %
25 %
Out
In 500 Year FZ
In 100 Year FZ
Chart Total ...
Total Future Homes
by Flood Zone
75 %
19 %
Out
In 500 Year FZ
In 100 Year FZ
Chart Hom...
Homes
In 100 Year Flood Zone
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
5,194
12,381
Today
Future
Chart Popul...
Population
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
18,659
37,513
Today
Future Scenario
Dickinson
Santa Fe
45
3


Chart Population
Population
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
5,954
13,148
Today
Future Scenario
Chart Total Future ...
Total Future Homes
by Flood Zone
4 %
30 %
67 %
Out
In 100 Year FZ
In 500 Year FZ
59
521
Edna
111


nd Future Surge Risk
to Homes
5,274
1,513
808
2016 Surge
Future Above
Future Surge
hart Homes
Homes
0 Year Flood Zone
2,312
243
Today
Future
us Surface ...
bus Surface Cover
cres Per Capita
0.12
0.07
Exisitng
New
35
35

Higher Standards



Long-term changes



AGRILIFE EXTENSION

Public Investments



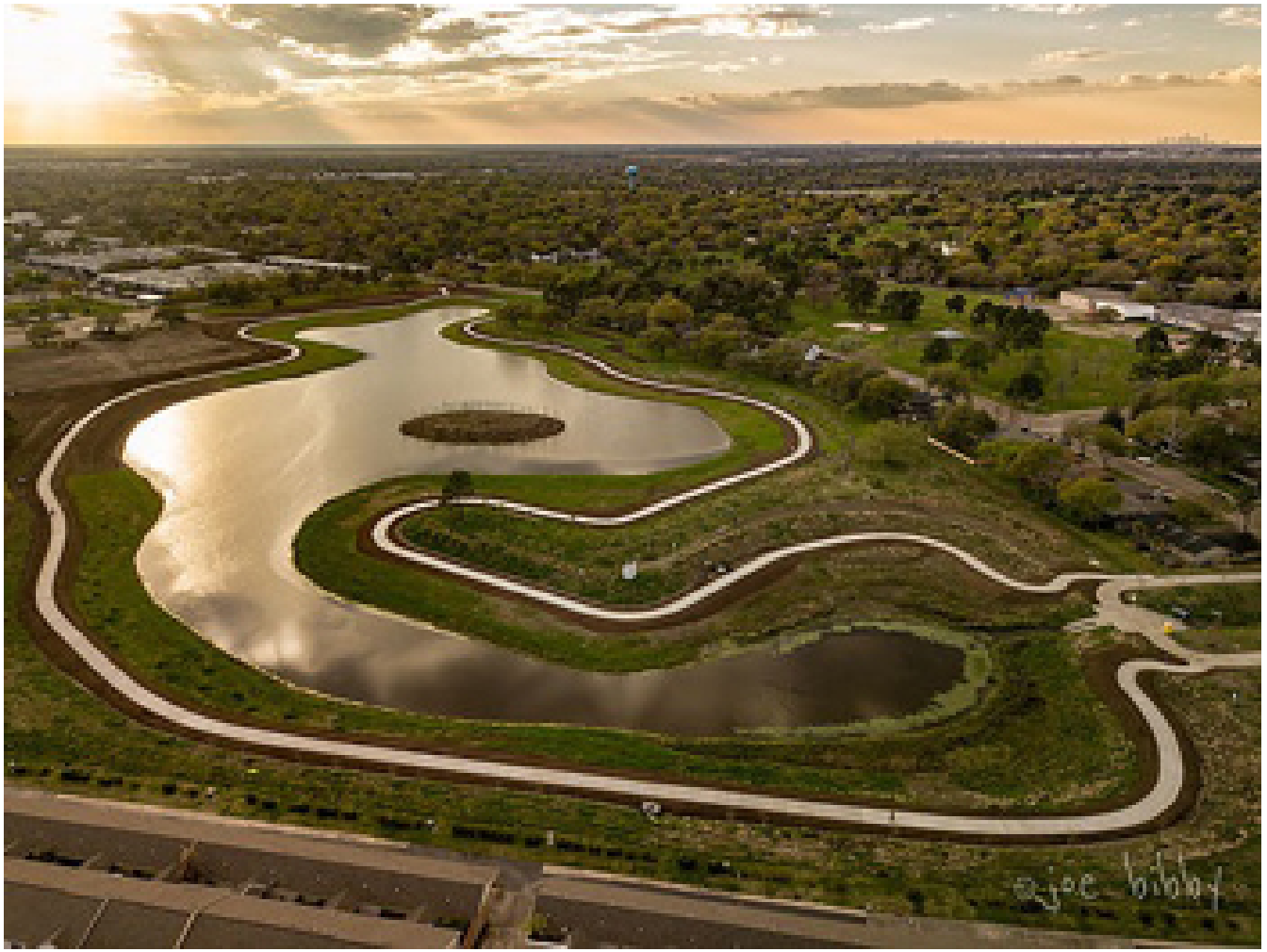
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Land Use



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Green Infrastructure Retrofits



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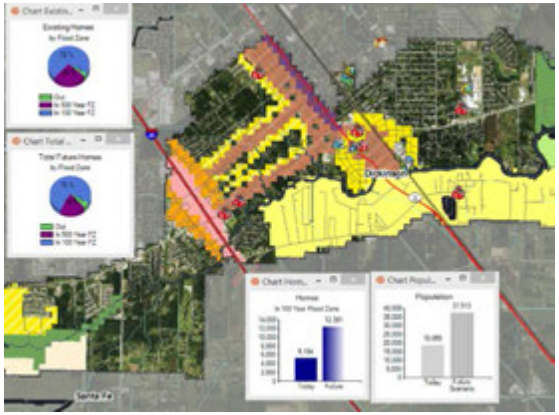
Permitting & Enforcement

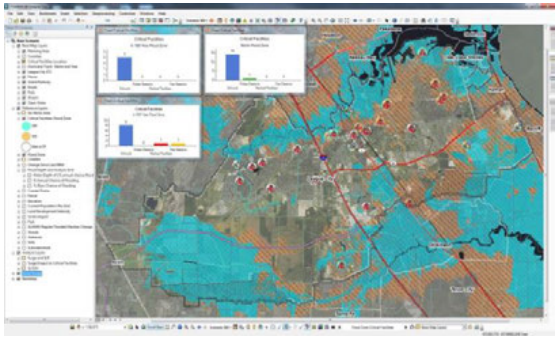




Planning Guidance Recap: What to Do

1. Engage and talk about *values*
2. Avoid adding more people or infrastructure to current and future hazard-prone areas
3. Inform those that are there about current and future risk
4. Downzone the most hazardous areas
5. Increase design standards based on future scenarios
6. Realistic long-term CIP acknowledging future increases in costs and decreased revenue





Texas A&M AgriLife Extension

CHARM

TCWP.tamu.edu
CommunityCHARM.org

Steven Mikulencak, AICP
TCWP Planning Team Lead & Project Manager
smikulencak@tamu.edu

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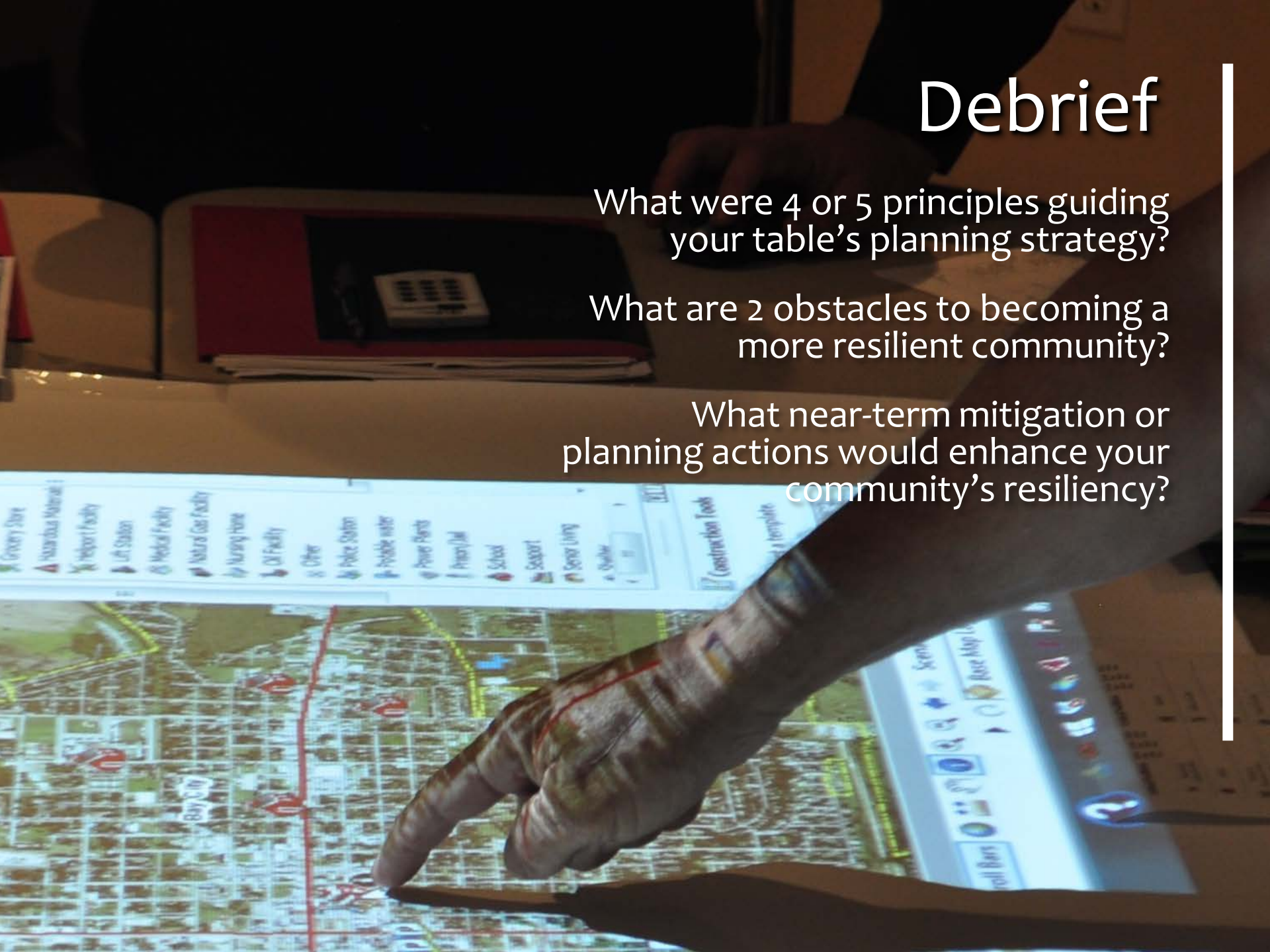
TEXAS COMMUNITY WATERSHED PARTNERS
A PROGRAM OF TEXAS A&M AGRILIFE EXTENSION



1:00-1:45 Orientation & Risk Review
1:45-2:50 Scenario Plan
2:50-3:10 Table Debrief
3:10-3:45 Whole Room Debrief

TEXAS A&M AGRILIFE EXTENSION

TEXAS COMMUNITY WATERSHED PARTNERS
A PROGRAM OF TEXAS A&M AGRILIFE EXTENSION



Debrief

What were 4 or 5 principles guiding your table's planning strategy?

What are 2 obstacles to becoming a more resilient community?

What near-term mitigation or planning actions would enhance your community's resiliency?